

CONTINUING MEDICAL EDUCATION ΣΥΝΕΧΙΖΟΜΕΝΗ ΙΑΤΡΙΚΗ ΕΚΠΑΙΔΕΥΣΗ

Medical Imaging Quiz – Case 2

A 55-year-old male patient presented with right abdominal pain of one month's duration. He had suffered from abdominal distention for the previous 5 months and weight loss of about 12 kg over the previous 2 months. He was a heavy smoker and alcohol addict. His temperature was 36.5 °C at the time of admission. The total blood count findings were Ht 28.6%, Hb 9.5 g/dL, WBC 10.0×10⁹/L. Laboratory tests had the following values: PSA 100 ng/mL, LDH 522 U/L, γ-GT 209 U/L, ALP 159 U/L, CEA 1.9 ng/mL, AFP 3.54 ng/mL, Ca-19-9 >5000 U/mL, Ca-125 1100.6 U/mL. Physical examination showed a palpable, firm, circumscribed, painless mass in the centre and on the right side of the abdomen. Dual-phase post-contrast abdominal CT showed a large, well-defined, intramesenteric soft tissue mass with central hypodense, psammomatous calcifications and heterogeneous enhancement. Hypodense hepatic lesions were also seen (figures 1 and 2).



Figure 1

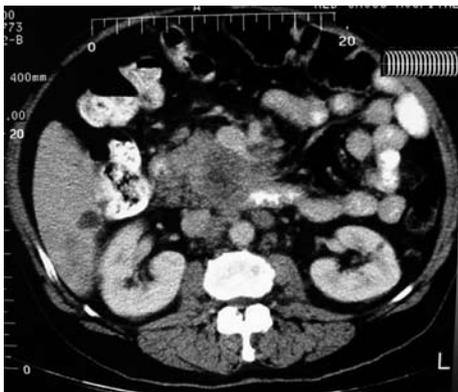


Figure 2

ARCHIVES OF HELLENIC MEDICINE 2008, 25(2):256
ΑΡΧΕΙΑ ΕΛΛΗΝΙΚΗΣ ΙΑΤΡΙΚΗΣ 2008, 25(2):256

A. Pomoni,
S. Mylona,
L. Thanos

Department of Computed Tomography,
"Sotiria" General Hospital of Chest
Diseases, Athens, Greece

Comment

Solitary fibrous tumour (SFT) is a rare entity, formerly known as localised fibrous mesothelioma. It was first described as a pleural neoplasm, but it has also been reported in extrapleural sites such as the peritoneum, retroperitoneum, liver and mesentery. Unlike diffuse mesotheliomas, SFT shows no relationship to asbestos exposure. SFT tends to be asymptomatic or produces minor symptoms such as vague abdominal discomfort. Physical examination shows a firm, circumscribed, painless mass. The histogenesis and biological behaviour of this neoplasm is still in question. However, it is widely accepted that the SFT arises from a submesothelial cell that has been regarded as a primitive fibroblast or mesenchymal cell. Histologically, it is composed of spindle-shaped cells that produce fibrous collagen and mucoid material. In most cases, tumour cells show immunohistochemical reactivity for vimentin and CD-34. Cystic degeneration is especially seen in large tumours, which tend to have profuse and prominent blood vessels. The clinical behaviour of SFT is unpredictable. The benign variant is three to four times more common than the malignant. Indicators of aggressive behaviour include increased cellularity with crowding and overlapping of nuclei, prominent mitotic activity with more than four mitotic figures per 10 high-power fields, necrosis and nuclear pleomorphism. Malignant tumours are usually infiltrative, poorly circumscribed masses, but no definitive reliable guidelines for tumour prognosis have been established. Dedifferentiated liposarcoma, fibrosarcoma, malignant fibrous histiocytoma, lymphosarcoma, fibromatosis, hemangiopericytoma, leiomyosarcoma, malignant mesenchymoma and synovial sarcoma should be considered as differential diagnoses. The radiological appearance of SFT is variable. CT may demonstrate a well-defined mass with hypodense areas and psammomatous calcifications. On MRI the solid part of the tumour is low signal on T2-weighted images due to the high content of fibrous tissue or collagen. Intense enhancement of the lesion on post-contrast dynamic MRI indicates a highly vascular tissue. Biopsy is recommended for definitive diagnosis.

Corresponding author:

L. Thanos, Department of Computed Tomography, "Sotiria" General Hospital of Chest Diseases, 152 Messogheion Ave., GR-115 27 Athens, Greece
e-mail: loutharad@yahoo.com

Diagnosis: Malignant solitary fibrous tumour of the mesentery with liver metastases